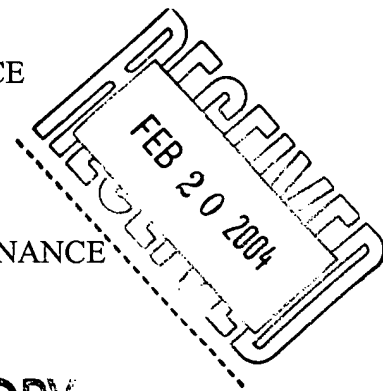




IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Blaise deB. Frederick et al.      Art Unit : 2859  
Serial No. : 09/909,932      Examiner : Brij B. Shrivastav  
Filed : July 20, 2001  
Title : GENERATION OF SYNTHETIC NUCLEAR MAGNETIC RESONANCE  
SIGNALS



Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**BEST AVAILABLE COPY**

REPLY TO ACTION OF SEPTEMBER 5, 2003

In reply to the Office Action of September 5, 2003, Applicant submits the following remarks.

Applicant appreciates Examiner's conversations with Applicant's representative. Applicant submits this Reply to clarify the differences between the claimed inventions and the prior art cited by Examiner.

The Patent Claims

The claimed inventions are apparatuses and methods relating to an "active" phantom. This active phantom is not a passive component that merely emits MR signals when excited by radio frequency (RF) pulses in an MR scanner. To the contrary, it is an active component. It is an active component because it generates its own waveform (p. 1, lns. 4-13); indeed, it "provides a direct source of a waveform" (p. 2, ln. 30). This waveform is used to simulate a waveform of a subject undergoing a MR scan. Thus, the active phantom uses this waveform to "simulate FID signals of, e.g., a human brain" (p. 3, ln. 19); "it generates synthetic FID signals that can simulate

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

February 5, 2004

Date of Deposit

Signature

Nancy A. Tuttle

Typed or Printed Name of Person Signing Certificate